

Claims:

1. A cellular proliferation assay for a compound acting through erbB-2 which comprises:
 - i) a cell comprising erbB-2 and erbB-3 and which is responsive to ligand
- 5 stimulated cell proliferation under conditions suitable for cell proliferation;
 - ii) a first ligand which is a ligand for erbB-3 capable of inducing proliferation by the cell;
 - iii) mixing i) and ii) in the presence and absence of compound;
 - iv) measuring whether the compound has any effect on reducing cell proliferation.
- 10 2. A cellular proliferation assay according to claim 1 comprising the addition of a control wherein the compound is tested in parallel in the absence of ligand to detect non-specific cell toxicity.
3. A cellular proliferation assay according to claim 1 or 2 comprising the addition of a second assay which is an assay for measuring whether the compound has activity through
- 15 EGFR which comprises:
 - i) a cell comprising erbB-2, erbB-3 and EGFR under conditions suitable for cell proliferation;
 - ii) a second ligand which is a ligand for EGFR capable of inducing proliferation by the cell;
 - 20 iii) mixing i) and ii) in the presence and absence of compound;
 - iv) measuring whether the compound has any effect on reducing cell proliferation.
4. A cellular proliferation assay according to any preceding claim wherein the cell endogenously expresses EGFR and/or erbB-2 and/or erbB-3.
- 25 5. A cellular proliferation assay according to claim 4 wherein the cell endogenously expresses EGFR, erbB-2 and erbB-3.
6. A cellular proliferation assay according to any preceding claim wherein the first ligand is a heregulin.
7. A cellular proliferation assay according to claim 6 wherein the first ligand is heregulin β 1.
- 30 8. A cellular proliferation assay according to any one of claims 3-7 wherein the second ligand is EGF.
9. A cellular proliferation assay according to any preceding claim wherein the cell is an immortalised normal epithelial H16N-2 cell.

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10. A cellular proliferation assay according to any one of claims 1-8 wherein the cell is a MCF-7 cell.